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**EVALUATING 1 & 2D DIMENSIONAL MODELS FOR FLOODPLAIN  
INUNDATION MAPPING**

by

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## **EVALUATING 1 & 2D DIMENSIONAL MODELS FOR FLOODPLAIN INUNDATION MAPPING**

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### **SUMMARY**

This document reports on the work undertaken in the first 6 months of the project.

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### **BACKGROUND**

The aim of this project is to undertake a feasibility study into the potential utility of integrating high resolution two dimensional finite element flow models and Geographical Information Systems technology.

The initial phase of this research concerns the construction of an operational high resolution flow model for a 60km reach of the Missouri River between Gavins Point Dam and Maskell gauging station. Specifically, the contract seeks to produce a CRREL report and to assess data needs for 2D FE models for river flow inundation.

This report contains a brief review of progress on this work unit during months 3-6 of the research contact.

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### **PROGRESS**

This reporting period saw liaison with **remote sensing** organisations in the UK and elsewhere in respect of coupling to CFD codes for 2D FE modelling of compound channels.

The objective here is to begin the process of developing specific data requirements for 2D FE codes (objective (c) of the contract).

Further simulations have been completed in this regard to begin the sensitivity analysis of FE schemes.